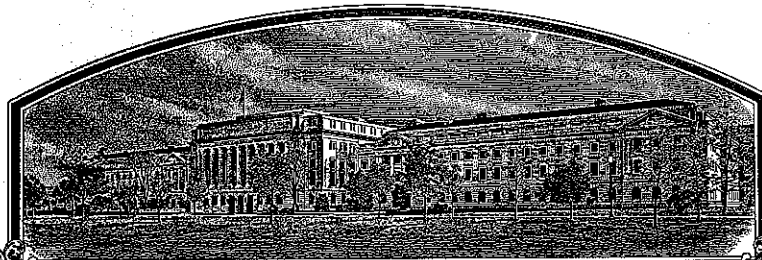


No.

200300061



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Hennington Seeds, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE FOREGOING PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

FESCUE, CHEWINGS

'7 Seas'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this sixth day of February, in the year two thousand and seven.

Attest:

Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

## APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

1. NAME OF OWNER  <del>Pennington Seeds, Inc.</del> (BT: 8/4/2006)		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME  C73		3. VARIETY NAME  '7 Seas' (BT: 10/3/06)	
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)  <del>P.O. Box 200</del> 270 Hansard Avenue <del>Madison, GA</del> Lebanon, OR <del>30650</del> 97355 (BT: 8/11/06)		5. TELEPHONE (Include area code)  <del>404-342-1234</del> (541) 451-5261		FOR OFFICIAL USE ONLY  PVPO NUMBER  200300061	
7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.)  Corporation		8. IF INCORPORATED, GIVE STATE OF INCORPORATION  Delaware		6. FAX (Include area code)  <del>404-342-0644</del> (541) 451-5260	
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers.)  <del>Rennie Stapp</del> Field Department Manager <del>c/o Pennington Seeds, Inc.</del> Leon Strait <del>P.O. Box 200</del> 270 Hansard Avenue <del>Madison, GA</del> Lebanon, OR 97355 <del>30650</del> (BT: 8/11/06)		9. DATE OF INCORPORATION  02 - 12 - 1998		FILING DATE  Dec. 13, 2002	
11. TELEPHONE (Include area code) (541) 451-5251 <del>404-342-1234</del> (BT: 8/11/06)		12. FAX (Include area code) (541) 451-5260 <del>404-342-0644</del>		FILING AND EXAMINATION FEES: \$ 2705 DATE 12/13/02 CERTIFICATION FEE: \$ 768.00 DATE 1/9/2007	
13. E-MAIL		14. CROP KIND (Common Name)  Chewings Fescue <del>Strong Creeping Red Fescue</del> (BT: 10/3/06)		15. GENUS AND SPECIES NAME OF CROP  Festuca rubra commutata	
16. FAMILY NAME (Botanical)  Poaceae		17. IS THE VARIETY A FIRST GENERATION HYBRID?  <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)  a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership f. <input type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository) g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$2,705), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)	
19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act)  <input type="checkbox"/> YES (If "yes", answer items 20 and 21 below) <input checked="" type="checkbox"/> NO (If "no", go to item 22)		20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO THE NUMBER OF CLASSES? IF YES, WHICH CLASSES? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED		21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? IF YES, SPECIFY THE <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED NUMBER 1,2,3, etc. (If additional explanation is necessary, please use the space indicated on the reverse.)	
22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U.S. OR OTHER COUNTRIES?  <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)		23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)?  <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)		24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.  The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.  Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.	
SIGNATURE OF OWNER  Ronnie Stapp		SIGNATURE OF OWNER		NAME (Please print or type)  Ronnie Stapp c/o Pennington Seed, Inc.	
CAPACITY OR TITLE  Executive Vice Pres.		DATE  12/09/02		CAPACITY OR TITLE  DATE	

## Exhibit A:

## Origin and Breeding History

<sup>'7 Seas'</sup>  
 C73 Chewings Fescue  
 (BT: 10/3/06)

1. <sup>'7 Seas'</sup>  
 C73 Chewings fescue (*Festuca rubra* L. subsp. *commutata* Guad.) is an advanced generation synthetic cultivar selected from the maternal progenies of 49 clones. C73 was developed for improved seed yield and turf performance, dark bright green color, and freedom from disease. Ninety-two percent of the parental germplasm in C73 contain the Neotyphodium endophyte. Three plants contained an endophyte referred to as the Cambridge endophyte, which was discovered in plants selected from Longfellow Park in Cambridge, MA. Forty-five plants contained the endophyte referred to as the Delaware endophyte, which was discovered in plants selected from 4 Delaware Drive in East Brunswick, NJ.

Tillers were selected from better performing turf plots from the 1993 fine fescue trial at North Brunswick and the 1997 fine fescue trial at Adelphia. Eighteen single-plot progenies were selected from 260 progenies from the 1993 trial and 175 progenies from the 1997 trial. The 680 selected plants from the 1993 trial and 520 selected plants from the 1997 trial were established in greenhouse flats prior to their transfer to separate spaced-plant nurseries in September, 1998. In the spring of 1999, 64 plants were selected from these nurseries for dark bright green color, high seed yield potential, freedom from disease and medium-early maturity then moved to an isolated crossing block. Forty-nine plants from 11 different lines with excellent floret fertility were harvested. Seed from each of these plants was used to establish single-plant, half sib progeny turf trials at Adelphia, NJ in the fall of 1999.

The germplasm used in the development of C73 Chewings fescue were developed using a germplasm and population program initiated at the New Jersey Agricultural Experiment Station in 1962. The most promising plants used in this program were selected from old lawn-type turfs on the grounds of Fort Mc Henry, Baltimore, MD, Johnson Park in Piscataway, NJ, the College Avenue Campus of Rutgers University, New Brunswick, NJ, the Bridgehampton Golf Course, Bridgehampton, NY, Longfellow Park, Cambridge, MA, Westview Cemetery, Atlanta, GA, old parks in Philadelphia, PA, Tennant Cemetery, Tennant, NJ, and a lawn located at 4 Delaware Drive, East Brunswick, NJ.

Although Chewings fescue originated in Europe and performs best in cool-summer climates typical of northwestern Europe and the British Isles, millions of kilograms of seed have been used in turfgrass mixtures throughout the eastern United States. The performance of common types of Chewings fescue has been reasonably good on moderately fertile, moderately acid, well drained soils in the cool-summer parts of New England and upstate New York, especially under conditions where light shade with adequate air circulation

produce a cooling effect. In warmer regions, only a few elite plants have survived in old turfs. Many of these rare, outstanding plants have persisted and spread to produce attractive patches of turf exceeding one or two meters in diameter. Such patches can be found in old turfs as far south as Atlanta, GA. The origin of these plants is unknown. However, selected plants appeared to be many decades old.

An intensive germplasm collection effort was initiated by Rutgers University in 1962 to select and utilize the best plants surviving in old turfs. Many weeks were spent examining old turfs for attractive, well-adapted plants of Chewings fescue and other useful turfgrasses. Promising plants selected from old turfs were subjected to clonal and progeny evaluation in closely mowed turf trials and spaced-plant nurseries. Of over a thousand Chewings fescue plants collected, only a few dozen were saved for further breeding work. These elite selections were crossed with other promising selections from the germplasm collection program or from current cycles of the breeding program. Progenies from these crosses were included in population improvement programs, which included screening in a greenhouse for improved disease resistance, in space-plant nurseries for increased seed yield and uniformity, and in closely mowed turf trials for improved turf performance and increased stress tolerance. The Cambridge endophyte and the Delaware endophyte were introduced into the germplasm base through population backcrossing. Extensive screening for improved disease resistance was conducted under greenhouse conditions as well as in spaced-plant nurseries and closely mowed turf trials at North Brunswick, and Adelphia, NJ.

In the fall of 1999 a seed increase block containing 60 plants of 49 progeny lines (2,940 plants) was established in Albany, Oregon. In 1999 negative mass selection was used and 7.92 % of the plants were rogued from the population. The remaining plants were harvested in bulk and the seed was used to establish a morphological nursery for Plant Variety Protection (PVP) measurements.

2. Breeder Seed Maintenance:

A breeder seed multiplication was planted in isolation in 1999 in Albany, Oregon. Seed was harvested in bulk in 2000 and is maintained in cold storage. Seed propagation is limited to three generations, one each of foundation, registered, and certified.

3. Stability and Uniformity:

'7 Seas'  
<C73> has been a stable uniform cultivar over 2 generations. No off-type or variant plants have been observed during the multiplication or reproduction. During the breeder seed multiplication 7.92 % of the plants were removed. These types were not observed during the subsequent generations. Turf plots of C73 have been uniform and stable.

(BT: 8/4/2006 per applicant's authorization)

## Addendum to Exhibit A for 7 Seas (&lt;C73&gt;)

*'7Seas'*

(08/10/3/06)

~~C73~~ has been a stable and uniform cultivar over two generations. No off-type or variant plants have been observed during the multiplication or reproduction. During the breeder seed multiplication plants were removed to improve the uniformity of the population. The plants that were removed showed less vigor and had poor plant health. It is not known if the lack of vigor was due to environmental factors, genetic factors, or an environmental by genetic interaction. These types were not observed during the subsequent generations. Turf plots of C73 have been uniform and stable.

**Exhibit B:**

**Novelty Statement of <sup>'7 Seas'</sup>~~C73~~ Chewings Fescue**  
(BT:10/3/06)

The following summary outlines the distinctive characteristics of C73. The novelty of C73 is based on the unique combination of these characteristics. C73 is most similar to Banner, but may be differentiated by using the following criteria:

- 1) <sup>'7 Seas'</sup>~~C73~~ exhibits a darker genetic color compared to Banner (tables 1A, 1B).  
(BT:10/3/06)
- 2) The morphological characteristics of flag leaf length, height and internode length are shorter for C73 compared to Banner (tables 1A, 1B).
- 3) C73 has shorter leaf blade characteristics length, height, and sheath length than Banner (tables 1A, 1B).
- 4) C73 has a shorter awn length than Banner (tables 2A, 2B).
- 5) C73 exhibits more plants with an erect growth habit compare to Banner (tables 3A, 3B).
- 6) C73 produces fewer plants with purple pigmentation in the anthers and glumes (tables 3A, 3B, 4A, 4B).
- 7) Red pigmentation of the panicle is observed in less frequency in C73 than Banner (tables 3A, 3B).
- 8) C73 expresses fewer plants with pubescence of the panicle branch (tables 3A, 3B).
- 9) C73 has a lower frequency of plants with a distinct brown pigmentation of the nodes compared to Banner (tables 4A, 4B).
- 10) Banner produces a few plants with hairs on the leaf blade surface compared to C73 which produces none (tables 5A, 5B).
- 11) <sup>'7 Seas'</sup>~~C73~~ has a higher seed weight than Banner (tables 5A, 5B).  
(BT:10/3/06)

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURE MARKETING SERVICE  
PLANT VARIETY PROTECTION OFFICE  
BELTSVILLE, MARYLAND 20705

EXHIBIT C  
(Fine Leaved Fescues)

OBJECTIVE DESCRIPTION OF VARIETY  
FINE LEAVED FESCUES  
(*Festuca spp.*)

NAME OF APPLICANT(S) (BT: 8/4/06) <del>Donnie Stapp</del> Pennington Seeds Inc.	TEMPORARY DESIGNATION C73	VARIETY NAME '7 Seas' (BT: 10/3/2006)
ADDRESS (Street and No. or R.F.D. No., City, State, Zip Code) <del>P.O. Box 290</del> 270 Hansard Avenue 1280 Atlanta Hwy. Lebanon, OR <del>Madison, GA 30650</del> 97355		FOR OFFICIAL USE ONLY PVPO NUMBER 200300061

Place the appropriate number that describes the varietal character of this variety in the boxes

below. Use leading zeroes when necessary: (e.g., 0 8

or 0 9). Characteristics described including numerical measurements, should represent those that are typical for the variety. Measured data should be for SPACED PLANTS. Royal Horticulture Society or any recognized color fan may be used to determine plant colors; designate system used: \_\_\_\_\_

Describe location of test area, conditions and number of plants used: See section 16, page 4.

1. SPECIES: (With comparison varieties for use below - use varieties within species of application variety)

<u>14</u>	1 = <i>F. rubra ssp. commutata</i> (Chewings)	11 = Cascade	12 = Highlight	13 = Jamestown
___	2 = <i>F. rubra ssp. litoralis</i> (Creeping Red)	14 = Banner	15 = Barfalla	23 = Merlin
___	3 = <i>F. rubra ssp. rubra</i> (Spreading Red)	21 = Dawson	22 = Starlight	
___	4 = <i>F. ovina</i> (Sheep)	24 = Pennlawn		
___	5 = <i>F. longifolia</i> (Hard)	31 = Boreal		
___	6 = <i>F. tenuifolia</i> (Fine-Leaved Sheep)	34 = Ensylva		
___	7 = Other (Specify) F. _____	41 = Covar		
		51 = Durar	52 = Biljart (C-26)	53 = Scaldis
		61 = Panda	62 = Barok	

2. CYTOLOGY:

4 2 Chromosome Number 3 Ploidy 1 = diploid 2 = tetraploid 3 = hexaploid  
4 = octoploid

3. ADAPTATION: (0 = Not Tested; 1 = Not Adapted; 2 = Adapted)

2 Northeast 0 Southeast 0 North Central 2 Pacific N.W.     Other (Specify) \_\_\_\_\_

4. MATURITY: Date First Headed (panicle emergence) Location(s) of Trial(s)

3 Maturity Class:  
1 = Very Early (Covar) 2 = Early (Highlight) 3 = Medium Early (Boreal, Dawson)  
4 = Medium Late (Cascade, Ruby) 5 = Late (Jamestown, Agram) 6 = Very Late

Date Headed 26.00 days after March 1.

___	Days earlier than . . . . .	___	} Comparison Variety
___	Maturity same as . . . . .	<u>14</u>	
___	Days later than . . . . .	___	

5. Plant Height: (At maturity; to top of panicle; Average of 10 culms)

556.70 mm height  
\_\_\_ mm shorter than . . . . . \_\_\_  
Height same as . . . . . 14  
\_\_\_ mm taller than . . . . . \_\_\_

} Comparison Variety

6. GROWTH HABIT: (Mature)

2 1 = Erect (Ruby) 2 = Semi-erect (Highlight) 3 = Prostrate (Silvana)

7. RHIZOMES:

1 mm Length     mm Width     mm Internode length  
1 = Absent (Highlight) 2 = Weakly Creeping (Dawson) 3 = Strongly Creeping (Boreal)  
4 = Very Strongly Creeping (Fortress)

8.

## LEAF BLADE:

200300061

4 Color: 1 = Light Green (Starlight) 2 = Medium Light Green (Highlight) 3 = Medium Dark Green (Ruby, Agram)  
 4 = Dark Green (Jamestown, Manoir) 5 = Bluegreen (Saphir) 6 = Graygreen (Scaldis)  
 7 = Other (Specify) \_\_\_\_\_

1 Glaucoesity (Sowing Year): 1 = Absent (Koket) 2 = Present (Vendrome)

1 Anthocyanin: 1 = Absent 2 = Present 2 (5%) Hairs (Basal) 1 = Absent 2 = Present

1 Margins: 1 = Smooth 2 = Semi-rough 3 = Rough

2 Margin folding (closure): 1 = Rolled inward (closed-Highlight) 2 = Flat (open-Jamestown, Engina)

2 Width class:  
 1 = Very Fine (Agram, Frida) 2 = Fine (Jamestown, Highlight, Banner, Dawson)  
 3 = Medium Fine (Fortress, Ruby, Scaldis) 4 = Medium Coarse (Engina)

280.70 mm Length (flag leaf)

48.60 mm Shorter than . . . . . 14 } Comparison Variety  
 Blade length same as . . . . . 1  
1 mm Longer than . . . . . 1

2.78 mm Width (flag leaf)

▲ 1 mm Narrower than . . . . . 1 } Comparison Variety  
 Blade width same as . . . . . 14  
▲ 1 mm Wider than . . . . . 1

9.

## LEAF SHEATH:

1 Anthocyanin (seedling): 1 = Absent (Highlight) 2 = Present (Jamestown, Fortress, Marga)

1 Auricle Hairiness: 1 = Absent 2 = Present

1 Margins: 1 = Open (Highlight) 2 = Closed (Jamestown)

10.

## PANICLE (Mature plant):

2 Shape: 1 = Narrow-tapering 2 = Ovate 3 = Oblong 4 = Other (Specify) \_\_\_\_\_

1 Type: 1 = Open 2 = Intermediate 3 = Compact

1 Orientation: 1 = Erect 2 = Nodding

1 Branch Pubescence: 1 = Glabrous 2 = Pubescent

1 Anther Color: } 1 = Yellowish Green 2 = Green 3 = Bluish Green 4 = Purplish  
1 Glume Color (At 50% flowering): } 5 = Reddish 6 = Other (Specify) \_\_\_\_\_

470.00 mm Length

1 mm Shorter than . . . . . 1 } Comparison Variety  
 Panicle length same as . . . . . 14  
1 mm Longer than . . . . . 1

11.

## PALEA:

2 Hairs (On keels or margins): 1 = Absent (Banner) 2 = (Agram, Scaldis, Olds)  
 3 = Long (Ranier, Fortress, Jamestown)

## 12. LEMMA (Mature):

2 Hairs: 1 = Absent (Jamestown) 2 = Several 3 = Many (Highlight)

4.97 mm Lemma Length

1 mm Shorter than . . . . . 1

Lemma length same as . . . . . 14

1 mm Longer than . . . . . 1

} Comparison Variety

1.13 mm Lemma Width

1 mm Narrower than . . . . . 1

Lemma width same as . . . . . 14

1 mm Wider than . . . . . 1

} Comparison Variety

2 Awns: 1 = Absent 2 = Present

1.73 mm Awn Length

0.37 mm Shorter than . . . . . 14

Awn length same as . . . . . 1

1 mm Longer than . . . . . 1

} Comparison Variety

## 13. SEED (With lemma &amp; palea):

4 Size Class (g/1000 seed):  
1 = <.9g (Biljart, Dawson) 2 = .91-<1.1g (Jamestown, Highlight)  
3 = 1.1 - 1.3 g (Fortress, Novorubra) 4 = >1.3g (Boreal, Golfrood)

1,337.00 mg per 1000 seed

1 mg per 1000 seed less than . . . . . 1

Seed Weight same as . . . . . 1

306.00 mg per 1000 more than . . . . . 14

} Comparison Variety

## 14. DISEASE, INSECT, AND NEMATODE REACTION (0 = Not Tested, 1 = Susceptible, 2 = Resistant):

0 Melting-out *Drechslera poae*  
(*Helminthosporium vagans*)

0 Leaf spot *D. siccans*

0 Net blotch *D. dictyoides*

0 Leaf spot *Bipolaris sorkiniana*

0 Brown patch *Rhizoctonia solani*

0 Powdery Mildew *Erysiphe graminis*

0 Stripe smut *Ustilago striiformis*

0 F. Patch, Pink snow-mold *Fusarium nivale*

0 Fusarium blight *F. tricinctum*, *F. roseum*

0 Gray snow mold *Typhula lotana*

0 Stem rust *Puccinia graminis*

0 Stripe rust *P. striiformis*

0 Leaf rust *P. poae-nemoralis*

0 *P. crandalli*

0 Pythium Blight *Pythium ultimum*

0 Red thread *Corticium fusciforme*

0 Dollar spot *Sclerotinia homoeocarpa*

0 Insect \_\_\_\_\_

0 Nematode \_\_\_\_\_

0 Other \_\_\_\_\_

0 Other \_\_\_\_\_

0 Other \_\_\_\_\_

15. **GIVE VARIETY OR VARIETIES THAT MOST CLOSELY RESEMBLE THE APPLICATION VARIETY. For the following characteristics indicate Degree of Resemblance by placing the column marked, D. R., 1 of the following numbers:**

1 = Application variety is less than comparison variety.

2 = Same As

3 = More than, better, greater, darker, more disease resistant, etc.

CHARACTER	VARIETY	D. R.	CHARACTER	VARIETY	D.R.
Rhizome Length	Banner	2	Growth Habit	Banner	3
Leaf Width	Banner	2	Leaf Color	Banner	3
Panicle Color	Banner	1	Panicle Shape	Banner	2
Winter Color	Banner	2	Cold Injury	Banner	2
Shade Tolerance	Banner	2	Heat	Banner	2
Drought	Banner	2	Disease*	Banner	2

\* Specify each disease evaluated.

16. **ADDITIONAL DESCRIPTION: (Use additional sheets as required)**

Describe all characteristics that cannot be adequately described in the form above in Exhibit D. Comparative varieties should be used as may be appropriate, such as for disease. Append all comparative trial and evaluation data, including measured characters, environmental, and disease test.

A morphological nursery designated 00PVPFRC was established in September 2000, in Albany, Oregon. Experimental design consisted of 3 entries; 3 replications per entry; 20 plants per replication; for a total of 60 plants per entry. Banner was used as a standard. Plants were established on 2.5 foot centers with a skip row between replications and between entries.

The nursery received 30 pounds of nitrogen per acre rate following establishment and 50 pounds of nitrogen per acre per year in 2001 and 2002. The fertilizer source was 15 - 15 - 15 and was applied as a split application with ½ applied in the spring and ½ in the autumn. The nursery was sprayed twice each spring, 3 weeks between applications, with Tilt (2oz/acre rate), to prevent stem rust. One pound of Karmex per acre rate was applied during the late summer to prevent emergence of volunteer seedlings.

Data was analyzed using analysis of variance for a randomized complete block design. Means were calculated for each replication and then analyzed.

**Exhibit D:****Additional Description**

'7 Seas'  
~~C73~~ Chewings Fescue  
 (BT:10/3/06)

(BT:10/3/06) '7 Seas' ~~C73~~ has improved characteristics over current cultivars, such as Banner. C73 has a darker genetic color compared to Banner (tables 1A, 1B). C73 exhibits a reduced growth habit compared to Banner with a shorter flag leaf length, internode length, and height (tables 1A, 1B). Also, C73 has reduced leaf blade length, sheath length, and height compared to Banner (tables 1A, 1B). In the first year of growth C73 differs from Banner in many whorl characteristics; length of longest whorl, distance between lower most whorls and the length of the panicle from the lower most whorl to panicle tip (tables 2A, 2B, illus. 1).

C73 may be differentiated from Banner on several visual characteristics. C73 exhibits more plants with an erect growth habit at anthesis compared to Banner (tables 3A, 3B). C73 has a lower frequency of plants with purple pigmentation in the anther and glumes compared to Banner (tables 3A, 3B, 4A, 4B). C73 produces more plants with only one branch on the lower most whorl compared to Banner (tables 3A, 3B). C73 exhibits a higher percentage of plants with a glabrous panicle branch (tables 3A, 3B). Red pigmentation of the panicle is expressed as a lower level for C73 than Banner (tables 3A, 3B). C73 produces fewer plants which exhibit a distinct darkening at the nodes compared to Banner (tables 4A, 4B). The morphological characteristic of surface hairs on the leaf blade are absent in C73 compared to Banner (tables 5A, 5B). C73 produces fewer seeds per pound, with a higher seed weight compared to Banner (tables 5A, 5B).

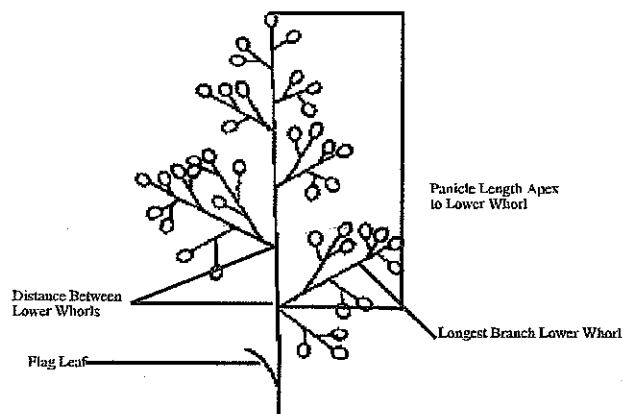
**Panicle Type Inflorescence****Illustration 1.**

Table 1A  
2000 Morphological Data

Cultivar	Heading Date (days after March 1)	Anthesis Date (days after March 1)	Genetic Color	Mature Plant Height (cm)	Plant Width (cm)	Panicle Length (cm)	Flag Leaf Length (cm)	Flag Leaf Width (mm)	Flag Leaf Height (cm)	Flag Leaf Sheath Length (cm)	Flag Leaf Internode Length (cm)	Leaf Blade Length (cm)	Leaf Blade Width (mm)	Leaf Blade Height (cm)	Leaf Sheath Length (cm)
<b>7 Seas</b> <b>C737</b>	26.00	55.33	5.80	55.67	13.00	47.00	15.03	2.78	19.07	11.87	8.20	12.20	2.78	6.40	6.20
Banner	25.67	55.67	4.88	68.27	15.40	53.83	20.63	2.80	29.00	15.53	11.97	17.93	2.90	10.90	8.93
LSD 5%	3.89	0.97	0.26	7.78	3.93	5.17	1.91	0.32	5.28	1.43	1.77	2.04	0.27	3.89	1.18
C.V.	6.32	0.74	2.02	5.26	11.60	4.30	4.50	4.79	9.22	4.39	7.37	5.68	4.00	18.85	6.56

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points.

■ Cultivar under evaluation.

■ Significant difference over two years one location.

■ Significant difference over one year one location.

Table 1B  
2001 Morphological Data

Cultivar	Heading Date (days after April 1)	Anthesis Date (days after April 1)	Genetic Color	Mature Plant Height (cm)	Plant Width (cm)	Panicle Length (cm)	Flag Leaf Length (cm)	Flag Leaf Width (mm)	Flag Leaf Height (cm)	Flag Leaf Sheath Length (cm)	Flag Leaf Internode Length (cm)	Leaf Blade Length (cm)	Leaf Blade Width (mm)	Leaf Blade Height (cm)	Leaf Sheath Length (cm)
<b>7 Seas</b> <b>C737</b>	42.33	56.67	5.40	75.93	28.13	58.20	28.07	3.02	33.53	16.13	13.93	22.07	2.77	14.60	14.67
Banner	48.33	58.00	4.72	80.10	28.60	59.83	32.93	2.98	40.07	18.73	16.67	26.70	2.83	17.50	17.37
LSD (0.05)	7.35	3.51	0.42	4.23	0.99	3.48	1.24	0.56	2.13	1.34	1.79	1.37	0.65	2.36	2.05
C.V.	6.80	2.57	3.45	2.28	1.46	2.47	1.71	7.85	2.43	3.22	4.90	2.36	9.81	6.17	5.37

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points.

■ Cultivar under evaluation.

■ Significant difference over two years one location.

■ Significant difference over one year one location.

Table 2A  
2000 Laboratory Morphological Data

Cultivar	Lemna Length (mm)	Lemna Width (mm)	Lemna Awn Length (mm)	Glume Length (mm)	Florets per Spikelet	Spikelet Length (mm)	Length of Longest Whorl (mm)	Distance Between Lower Most Whorls (mm)	Number of Spikelets on the Longest Whorl	Spikelets per Panicle	Length of Panicle From Lower Most Whorl to Tip (mm)
<b>7 Seas</b> <b>C737</b>	4.97	1.13	2.03	4.60	8.00	12.70	66.13	39.00	9.33	39.33	115.60
Banner	5.37	1.07	2.70	5.17	8.33	13.80	84.27	47.77	11.00	51.67	146.67
LSD (0.05)	0.45	0.19	0.52	0.26	0.97	1.76	6.79	4.48	0.97	10.84	11.37
C.V.	3.62	7.42	9.13	2.21	5.00	5.57	3.79	4.33	4.02	9.99	3.64

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points.

- Cultivar under evaluation.  
 ■ Significant difference over two years one location.  
 ■ Significant difference over one year one location.

Table 2B  
2001 Laboratory Morphological Data

Cultivar	Lemna Length (mm)	Lemna Width (mm)	Lemna Awn Length (mm)	Glume Length (mm)	Florets per Spikelet	Spikelet Length (mm)	Length of Longest Whorl (mm)	Distance Between Lower Most Whorls (mm)	Number of Spikelets on the Longest Whorl	Spikelets per Panicle	Length of Panicle From Lower Most Whorl to Tip (mm)
<b>7 Seas</b> <b>C737</b>	5.13	0.83	1.73	4.33	5.67	10.17	68.73	40.50	13.00	65.00	145.07
Banner	5.37	0.83	2.10	4.77	5.33	10.83	75.20	42.37	13.00	67.33	149.50
LSD (0.05)	0.19	0.17	0.26	0.49	0.97	0.42	13.07	7.84	1.69	13.63	23.57
C.V.	1.56	8.49	5.64	4.49	7.42	1.69	7.62	7.94	5.44	8.64	6.71

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points.

- Cultivar under evaluation.  
 ■ Significant difference over two years one location.  
 ■ Significant difference over one year one location.

Table 3A 2000 Additional Morphological Measurements of the Panicle

Cultivar	Growth Habit at Anthesis % Erect	Growth Habit at Anthesis % Semi- Erect	Growth Habit at Anthesis % Prostrate	Anther Color % Purple	Panicle Color % Red	Panicle Orientation % Nodding	Panicle Shape % Narrow	Panicle Type % Open	Branch Lower Whorl =1	Branch Lower Whorl =2	Branch Lower Whorl =3	Panicle Branch Pubescence % Pubescent
17 Seas C737	27	72	2	45	42	5	13	87	23	77	0	7
Banner	13	78	8	73	92	5	28	72	8	90	2	12

Measurements taken in Albany, Oregon

3 reps; 20 plants/rep = 60 data points

■ Cultivar under evaluation

(8/10/21/06)

Table 3B 2001 Additional Morphological Measurements of the Panicle

Cultivar	Growth Habit at Anthesis % Erect	Growth Habit at Anthesis % Semi- Erect	Growth Habit at Anthesis % Prostrate	Anther Color % Purple	Panicle Color % Red	Panicle Orientation % Nodding	Panicle Shape % Narrow	Panicle Type % Open	Branch Lower Whorl =1	Branch Lower Whorl =2	Branch Lower Whorl =3	Panicle Branch Pubescence % Pubescent
17 Seas C737	23	77	0	77	57	3	57	43	9	88	3	3
Banner	0	100	0	87	87	8	38	62	7	90	3	50

Measurements taken in Albany, Oregon

3 reps; 20 plants/rep = 60 data points

■ Cultivar under evaluation

(8/10/21/06)

Table 4A 2000 Additional Morphological Measurements of the Leaf Blade and Seed

Cultivar	Leaf Blade Margin Roughness to the Touch % Smooth	Leaf Blade Margin Roughness to the Touch % Semi-Rough	Leaf Blade Margin Roughness to the Touch % Rough	Leaf Blade Margin Hairs % Present	Leaf Sheath Auricle Hairs % Absent	Leaf Sheath Auricle Hairs % Long	Node Color % Distinct	Lemma Hairs % Present	Palea Hairs % Present	Glume Color % Purple	Rhizomes % Absent
7 Seas C737	77	18	5	2	98	0	55	80	97	25	100
Banner	77	18	5	2	92	3	73	75	97	43	100

Measurements taken in Albany, Oregon

3 reps; 20 plants/rep = 60 data points

■ Cultivar under evaluation

Table 4B 2001 Additional Morphological Measurements of the Leaf Blade and Seed

Cultivar	Leaf Blade Margin Roughness to the Touch % Smooth	Leaf Blade Margin Roughness to the Touch % Semi-Rough	Leaf Blade Margin Roughness to the Touch % Rough	Leaf Blade Margin Hairs % Present	Leaf Sheath Auricle Hairs % Present	Node Color % Distinct	Lemma Hairs % Present	Palea Hairs % Present	Glume Color % Purple	Rhizomes % Absent
7 Seas C737	67	30	3	45	0	53	73	82	27	100
Banner	78	22	0	67	0	73	80	97	57	100

Measurements taken in Albany, Oregon

3 reps; 20 plants/rep = 60 data points

■ Cultivar under evaluation

Table 5A 2001 Additional Morphological Measurements

Cultivar	Leaf Blade Anthocyanin % Purple	Leaf Sheath Surface Hairs % Glabrous	Leaf Blade Margin Folding % Closed	Leaf Blade Surface Hairs % Present	Leaf Sheath Collar Hairs % Glabrous	Leaf Sheath Margins % Open	Lemma Awns % Present	Seed Weight mg per 1,000 Seeds
14 Seas C737 (8/10/06)	0	100	12	0	95	100	100	1369
Banner	0	95	17	10	95	100	100	1038

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points.

■ Cultivar under evaluation.

Table 5B 2002 Additional Morphological Measurements

Cultivar	Leaf Blade Anthocyanin % Purple	Leaf Sheath Surface Hairs % Glabrous	Leaf Blade Margin Folding % Closed	Leaf Blade Surface Hairs % Present	Leaf Sheath Collar Hairs % Glabrous	Leaf Sheath Margins % Open	Lemma Awns % Present	Seed Weight mg per 1,000 Seeds
17 Seas C737 (8/10/06)	0	95	0	Present (8/10/06)	90	100	100	1337
Banner	0	92	0	5	93	100	100	1031

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points.

■ Cultivar under evaluation.

200300061

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held confidential until the certificate is issued (7 U.S.C. 2426).

**EXHIBIT E**  
**STATEMENT OF THE BASIS OF OWNERSHIP**

1. NAME OF APPLICANT(S) ( <del>BT: 8/11/2006</del> ) <del>Rennie Stapp</del> Pennington Seeds, Inc.	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER C73	3. VARIETY NAME '7 Seas' ( <del>BT: 10/3/2006</del> )
4. ADDRESS (Street and No., or R.F.D. No., City, State, and Zip, and Country) <del>P. O. Box 200</del> 270 Hansard Avenue <del>Madison, GA</del> Lebanon, OR 97355 <del>30650</del>	5. TELEPHONE (Include area code) (541) 451-5261 <del>404 342 1234</del> ( <del>BT: 8/11/2006</del> )	6. FAX (Include area code) (541) 451-5260 <del>404 342 9644</del> ( <del>BT: 8/11/2006</del> )
7. PVPO NUMBER 200300061		

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain.

☒ YES☐ NO

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? If no, give name of country.

☒ YES☐ NO

10. Is the applicant the original owner?

If no, please answer one of the following:☒ YES☐ NO

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?

☒ YES☐ NO

If no, give name of country

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?

☒ YES☐ NO

If no, give name of country

11. Additional explanation on ownership (If needed, use the reverse for extra space):

**PLEASE NOTE:**

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

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